



Feasibility Study for Improved Mobile Source Emission Inventories

Subcontractor

Coordinating Research Council

Principal Investigator

Douglas R. Lawson
Desert Research Institute
P.O. Box 60220
Reno, NV 89506
(702) 677-3193

DOE Project Manager

Michael Gurevich
U.S. Department of Energy
CE-332, MS 6A-116/Forrestal
1000 Independence Avenue, SW
Washington, DC 20585
(202) 586-6104

NREL Technical Monitor

Brent Bailey
NREL
1617 Cole Boulevard
Golden, CO 80401
(303) 275-4468

Subcontract Number

ZF-2-12252-09

Performance Period

12/94-9/95

NREL Subcontract Administrator

Scott Montgomery (303) 275-3193

Objective

To develop an approach for improving the existing mobile source emission inventories by using information from remote sensing and other real-world mobile source emissions measurements.

Approach

We will assemble a master database that contains remote sensing data (made available by various groups), vehicle information, location, site characteristics, fleet operating conditions, criteria for sampling, and type of study. This database, called Standardized Archive for Vehicle Emissions Data (SAVED) will be used to process and

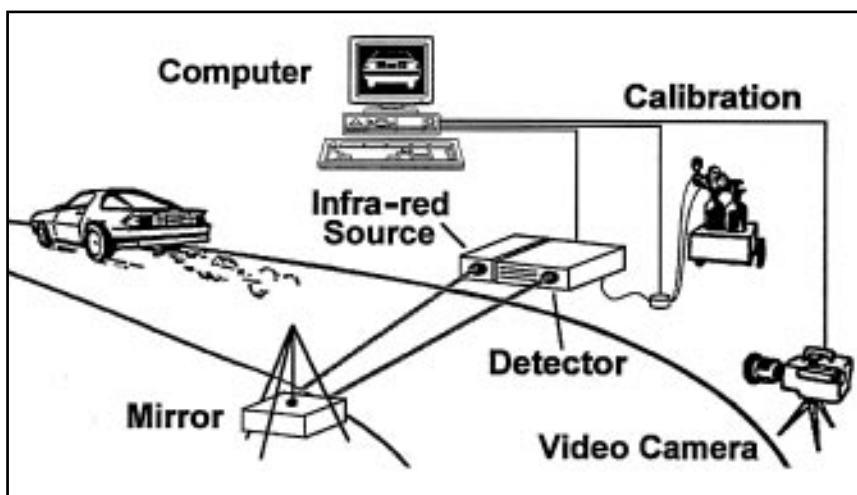


Figure 1: A remote sensing device

collate remote sensing data for the species ratios HC/CO_2 , CO/CO_2 , and if possible, NO/CO_2 , from each vehicle and its operating characteristics. We will validate and compare data acquired by multiple remote sensors and compare fleet-averaged data between studies, locations, and modeled outputs. We will also compare age distributions of high exhaust emitters (as identified by remote sensing) to those present in the MOBILE and EMFAC models, and remote sensing results with other emissions tests from the same vehicles.

Accomplishments

We have begun archiving the remote sensing data from various groups who have acquired data from projects throughout the country. The SAVED database currently contains emissions measurements from more than 2 million vehicles. The archival process has gone slower than originally anticipated, because some groups have responded slowly to our original requests. There have also been dissimilarities in data sets from individual groups and between groups.

Future Direction

Once the remote sensing and other in-use emissions data from the motor vehicle fleet have been properly archived, data analysis can begin.

Publications

None to date.